



MM511N



## Motor protection circuit breaker 3P 10-16A ; 4/7.5 kW at 230/415V

### Technical properties

#### Architecture

Number of poles 3 P

#### Configuration

Number of modules 2.5

#### Main electrical features

Rated operational voltage  $U_e$  690 V

Type of supply voltage AC

Frequency 50/60 Hz

#### Voltage

Rated insulation voltage 690 V

Rated impulse withstand voltage 6000 V

#### Electric current

Rated current 16 A

Rated ultimate short-circuit breaking capacity  $I_{cu}$  under 690V AC IEC 60947-2 3 kA

Magnetic regulating current 12.4 / 15.5 / 18.6  $I_n$

Thermal trip setting with 30° 10 / 10.8 / 11.5 / 12.3 / 13 / 13.8 / 14.5 / 15.3 / 16 A

Rating current 0°C according to IEC 60947 16 A

Rating current 10°C according to IEC 60947 16 A

Rating current 20°C according to IEC 60947 16 A

Rating current 30°C according to IEC 60947 16 A

Rating current 40°C according to IEC 60947 16 A

Rating current 50°C according to IEC 60947 16 A

Rated service breaking capacity  $I_{cs}$  AC according IEC 60947-2 75 %

Rated ultimate short-circuit breaking capacity  $I_{cu}$  under 230V AC IEC 60947-2 50 kA

Rated ultimate short-circuit breaking capacity  $I_{cu}$  under 240V AC IEC 60947-2 50 kA

Rated ultimate short-circuit breaking capacity  $I_{cu}$  under 400V AC IEC 60947-2 50 kA

Rated ultimate short-circuit breaking capacity  $I_{cu}$  under 220V AC IEC 60947-2 50 kA

Rated ultimate short-circuit breaking capacity  $I_{cu}$  under 380V AC IEC 60947-2 50 kA

#### Dimensions

Strip length of main circuit connections 10 mm

<b>Frequency</b>	50 to 60 Hz
<b>Power</b>	
Total power loss under IN	6.64 W
Standard power rating of 3 phase motor in AC3 under 230V	4 kW
Standard power rating of 3 phase motor in AC3 under 400V	7.5 kW
Rated operational power for 3P under 220-230V AC3 according IEC60947-4	4 kW
Rated operational power for 3P under 240V AC3 according IEC60947-4	4 kW
Rated operational power for 3P under 415V AC3 according IEC60947-4	7.5 kW
Rated operational power for 3P under 440V AC3 according IEC60947-4	9 kW
Rated operational power for 3P under 500V AC3 according IEC60947-4	9 kW
<b>Electrical specifications</b>	
Nominal tightening torque of main circuit	1.7 Nm
<b>Endurance</b>	
Electric endurance in number of cycles	50000
Mechanical endurance in number of operations per hour	40
Number of mechanical operations	100000
<b>Installation, mounting</b>	
Tightening torque	1,7Nm
Type connection of power circuit	with screw
<b>Connection</b>	
Connection cross-section of input and output with screws, for massive conductors	1 / 6 mm <sup>2</sup>
Connection cross section of access and exit with screws, for flexible conductor	1 / 6 mm <sup>2</sup>
Cable flexibel cross section for main circuit	1x (1 - 6) mm <sup>2</sup> / 2x (1 - 6) mm <sup>2</sup>
Cable rigid cross section for main circuit	1x (1 - 6) mm <sup>2</sup> / 2x (1 - 6) mm <sup>2</sup>
Type of connection	with screw
<b>Settings</b>	
min/maxi threshold value of the AC magnetic operation	198.4 / 297.6 A
Setting type In or Ith	IN
<b>Equipment</b>	
Automatic compensation of the temperature	-5 / 40 °C
Can be accessorized	Yes
<b>Use cases</b>	
Category of use	AC3
<b>Standards</b>	

Subject to technical modifications

European directive RoHS

voluntary compliance

**Safety**

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Protection index IP	IP20
REACH conform	Yes
RoHS conform	Yes
Phase failure sensitive	Yes

**Use conditions**

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Operating temperature	-25...55 °C
Degree of pollution according to IEC 60664 / IEC 60947-2	3
Storage/transport temperature	-25...80 °C

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Temperature of calibration	30 °C
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